## **EUROPEAN PATENT OFFICE**

## **Patent Abstracts of Japan**

PUBLICATION NUMBER

05093892

PUBLICATION DATE

16-04-93

APPLICATION DATE

01-10-91

APPLICATION NUMBER

03253279

APPLICANT: NEC CORP;

INVENTOR: HOSOI TORU;

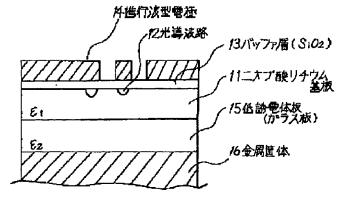
INT.CL.

G02F 1/03 G02B 6/12 G02F 1/035

TITLE

TWO-LAYERED TYPE OPTICAL

**MODULATOR** 



E1 > E2 (ε<sub>1</sub>, ε<sub>2</sub>は誘電率を表す)

## ABSTRACT :

PURPOSE: To suppress the higher mode of the optical modulator and to widen a band by sticking a low dielectric constant plate near to at least the electrode on the rear surface of the substrate of the optical modulator and loading the optical modulator in contact with a grounded metallic housing.

CONSTITUTION: The low dielectric constant plate 15 is stuck near to at least the electrode on the rear surface of the substrate of the optical modulator and is directly loaded to the grounded metallic housing 16. The optical modulator of the thinly formed lithium niobate substrate 11 is reinforce in strength by the low dielectric plate 15 stuck thereto, by which the handling is facilitated according to this constitution. Since the thickness of the optical modulator element itself can be increased by the low dielectric plate 15, the degree of freedom in design in packaging elements, such as optical fibers and connectors, is increased and the production is facilitated. In addition, the higher mode of the optical modulator is suppressed and the band is widened.

COPYRIGHT: (C)1993, JPO& Japio